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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/825,173

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Koichi Miyachi

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30593

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EXAMINER

MA, CALVIN

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/825,173	<b>Applicant(s)</b> MIYACHI ET AL.	
	<b>Examiner</b> CALVIN C. MA	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 15, 16, 21-24, 31-38, 60-76 and 131-138 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 33-38, 63-76 and 131-138 is/are rejected.
- 7) ☒ Claim(s) 4, 15, 16, 21-24, 31, 32, 60-62 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 33-38, 63-67, 69-72, 74-76 rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji USP 6480258 in view of Otobe et al USP 7095390.

As to claim 1, Tsuji teaches a color display device (i.e. color photos printed by the film processing system 6) that determines a relationship between plural color components (i.e. RGB signals picked up by each of the three CCD sensors 3C) (see Fig. 2, Col. 4, Lines 3-19) of an input color image signal in terms of gradation levels of the plural color components of an input color image signal (i.e. the exposure level of the film 1 adopted to the color), and that carries out calculation based on the relationship for each of the plural color components excluding a components with a relatively smallest gradation level (i.e. the components of the color of the film itself which is relatively smallest gradation is excluded by the system to create an improved image) (see Fig. 3, Col. 5, Lines 3-39), using variable varying depending on the relationship among the respective gradation levels of the plural color components (i.e. the system also compensated for variety of other characteristic such as image quality base on the film's

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attribute such as contrast, sharpness, and saturation which is based on relationship of different quality of the image such as gradation level) (see Fig. 3, Col. 5, Lines 30-50).

However Tsuji does not explicitly teach wherein the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation. Otake teaches wherein the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation (i.e. Otake teaches the lowest levels of the gradations of a display data can be kept unchanged as such design insure display characteristic that is judged to have no notable image quality deterioration since the change is extremely small in effect) (see Fig. 21, Col. 19, Line 38-67).

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the design of Otake which ignores the lowest effecting gradation to the overall image processing system of Tsuji since reducing electronic processes with improve speed overall to allow faster image processing and improved productivity (see Otake Col. 19, Lines 50-67).

As to claim 2, Tsuji teaches a color display device that determines a relationship between three color components of an input color image signal (i.e. RGB signals picked up by each of the three CCD sensors 3C) (see Fig. 2, Col. 4, Lines 3-19) in terms of gradation level of the three color components of an input color image signal, and that carries out a different calculation for each input color image signal depending on which of six patterns of the relationship that the input color image signal belongs to (i.e. image

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quality corrector 50 include a correction computing unit 51 that compensate the color parameter and improve the image quality) (see Fig. 3), the calculation being performed for each of the three color components excluding a components with a relatively smallest gradation level, using variable varying depending on the relationship among the respective gradation levels of the three color components (i.e. the color of the film 1 itself is excluded to improve the output quality) (see Fig. 2-3, Col. 5, Lines 1-60).

However Tsuji does not explicitly teach wherein the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation. Otobe teaches wherein the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation (i.e. Otobe teaches the lowest levels of the gradations of a display data can be kept unchanged as such design insure display characteristic that is judged to have no notable image quality deterioration since the change is extremely small in effect) (see Fig. 21, Col. 19, Line 38-67).

As to claim 3, Tsuji teaches the color display device as set forth in claim 1, wherein:

the variables are determined so that gradation levels of the input color images signal after color compensation fall within a range of a color model that expresses the gradation levels of the image signal before and after color compensation in terms of distributions of hue, luminance, and saturation (i.e. the system also compensated for

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variety of other characteristic such as image quality base on the film's attribute such as contrast, sharpness, and saturation which require the compensation in terms of distribution of hue and luminance since contrast and sharpness require these parameter to be calculated as well) (see Fig. 3, Col. 5, Lines 30-50).

As to claims 33, 35, 37, 63, and 66 see discussion of claim 1 above, claim 33, 35, and 37 are analyzed to be broader in scope then claim 1, and are therefore rejected on the same ground.

As to claim 34, 36, 38, 65, and 72, see discussion of claim 2 above, claim 34, 36, and 38 are analyzed to be broader in scope then claim 2, and are therefore rejected on the same ground.

As to claims 64 and 67, see discussion of claim 3 above, claim 64 is analyzed to be broader in scope than claim 3, and is therefore rejected on the same ground.

As to claims 69 and 74, Tsuji teaches a program adapted to cause a computer to execute the method of claim 66 (i.e. the image processing unit 8 is clear a part of a computing system, this mean that a program is need to allow the implementation of the correction mechanism) (i.e. image quality corrector 50 include a correction computing unit 51 that compensate the color parameter and improve the image quality) (see Fig. 3, Col. 5, Lines 30-50).

As to claims 70 and 75, Tsuji teaches a computer signal comprising the program of claim 69 (i.e. image quality corrector 50 include a correction computing unit 51 that compensate the color parameter and improve the image quality) (see Fig. 3, Col. 5, Lines 30-50).

As to claims 71 and 76, Tsuji teaches a computer readable medium, comprising the program of claim 69 (i.e. image quality corrector 50 include a correction computing unit 51 that compensate the color parameter and improve the image quality and the Look up table 63 is required by the correction parameter storage) (see Fig. 3, Col. 5, Lines 30-50).

3. Claims 68 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji in view of Otake as applied in claim 1-3, 33-38, 63-67, 69-72, 74-76 and further in view of Yamashita et al USP 6101271.

As to claim 68, 73, Tsuji teaches the method of 66, but does not explicitly teach wherein the color display method is for a television receiver (i.e. Winkelman only cite a video source as image input). Yamashita teaches color display method is for a television receiver (i.e. NTSC format television) (see Fig. 1, Col. 4, Lines 65-67)

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have applied television signal of Yamashita to the input

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of Tsuji film printing system as Tsuji's system is able to process the digital images such as CG images made with computer graphics software (Tsuji Col. 3, Lines 47-55) in order to expand the function of film print image correction function to television signal input (see Yamashita Col. 1, Lines 20-25).

4. Claims 131-138 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji in view of Otobe as applied in claim 1-3, 33-38, 63-67, 69-72, 74-76 and further in view of in view of Smith (US Pub: 2004/0105105).

As to claims 131, 133, 135 and 137 Tsuji does not explicitly teaches the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation Smith teaches the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation (i.e. the K component of the CMYK is not adjusted but is still a percentage in the color space) (see [20]).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the color accentuating method of Smith to improve the printing system of Tsuji, in order to improve the picture quality in print media (see Smith [0005]).

As to claims 132, 134, 136, and 138, Smith teaches the relatively greatest component in gradation level among the three components of RGB is compensated by



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using both the compensation value of the relatively greatest component and the compensation value of the complementary color of the relatively greatest component and the second relatively greatest component, and the second relatively greatest component in gradation level among the RGB components is compensated by using the compensation value of complementary color of the relatively greatest component and the second relatively greatest component (i.e. the color accentuation system is able to process RGB color and determine the relative magnitude difference with in the color space and adjust base on the relative magnitude, since the example is given in Smith in CMY(K) this does not prevent one of ordinary skill in the art to applied the same technique in RGB color system).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-3, 33-38, 63-67, 69-72 and 74-76 have been considered but are moot in view of the new ground(s) of rejection.

### ***Allowable Subject Matter***

6. Claims 4, 15-16, 21-24, 31-32 and 60-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CALVIN C. MA whose telephone number is (571)270-1713. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on 571-272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Calvin Ma  
October 20, 2009

/Chanh Nguyen/  
Supervisory Patent Examiner, Art  
Unit 2629